

# Human IL-13RA1 Protein; His Tag

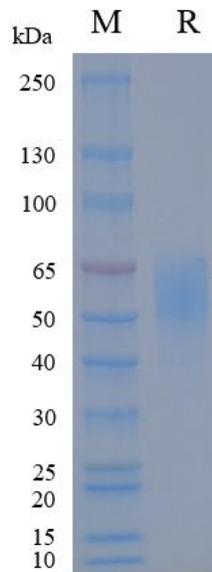
## Product Information

<b>Product Name</b>	Human IL-13RA1 Protein; His Tag
<b>Storage temp</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-88041RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-88041RP-1000 / 1 mg</b>

## Protein Information

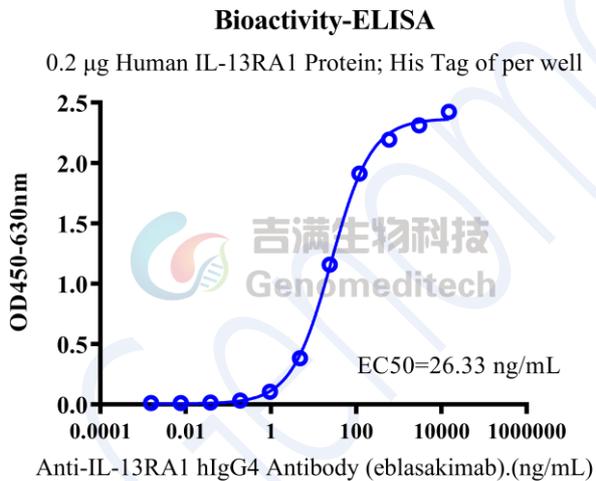
<b>Alternative Names</b>	IL13RA1, CD213A1, IL-13Ra, NR4, RP13-128O4.2, IL13R $\alpha$ 1
<b>Source</b>	Human IL-13RA1 Protein; His Tag (GM-88041RP) is expressed from human 293 cells (HEK-293). It contains AA Gly 22 - Thr 343 (Accession # P78552-1). This protein carries a His tag at the C-terminus.
<b>Purity</b>	> 95% as determined by SDS-PAGE
<b>Endotoxin</b>	< 1 EU/ $\mu\text{g}$ , determined by LAL gel clotting assay
<b>Predicted Mol Mass</b>	37.7 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
<b>Description</b>	IL13RA1 is a component of the type II IL-4 receptor. It is a single-pass transmembrane protein encoded by the IL13RA1 gene and expressed on various cells, including macrophages, dendritic cells, some lymphocytes, and some non-hematopoietic cells. It partners with IL4R $\alpha$ to form the IL-13 receptor, modulating allergic inflammation, Th2 responses, and tissue remodeling. Dysregulation of IL-13 signaling via IL13RA1 links to atopy and fibrosis. IL-13 binding to the IL13RA1/IL4R $\alpha$ complex activates JAK-STAT signaling, mainly inducing STAT6 phosphorylation and transcription of IL-4/IL-13-responsive genes. It also engages PI3K-AKT and MAPK pathways, affecting epithelial barrier, mucus production, and chemokine/cytokine expression. Cross-talk with IL-4 can amplify responses. Aberrant IL-13/IL13RA1 signaling is associated with allergic diseases, fibrosis, and inflammation, making this axis a therapeutic target.

## SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity-ELISA



Human IL-13RA1 Protein; His Tag (Catalog # GM-88041RP) was immobilized at 2  $\mu$ g/ml (100  $\mu$ L/well). Increasing concentrations of Anti-IL-13RA1 hIgG4 Antibody (eblasakimab) (Catalog # GM-88181AB) were added.